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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,995	07/24/2003	Bjarne Nilsen	2137JB.45692	9903
7590	11/15/2005		EXAMINER	
Bracewell & Patterson, L.L.P. P.O. Box 61389 Houston, TX 77208-1389			CHAUDHRY, SAEED T	
			ART UNIT	PAPER NUMBER
			1746	

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/625,995	Applicant(s) NILSEN, BJARNE	
	Examiner Saeed T. Chaudhry	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) 9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-10 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/5/04, 7/24/03</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Election/Restriction

Restriction to one of the following inventions is required under 35 U.S.C. 121:

Group I, Claims 1-8, drawn to a method of cleaning a light-transmissive or light reflective surface in contact with a fluid flow, classified in Class 134, subclass 22.1.

Group II, Claims 9-10, drawn to an apparatus comprising a duct; light generating means; a light responsive detection means and processing signal means, classified in Class 356, subclass 335.

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (M.P.E.P. § 806.05(e)). In this case the process as claimed can be practiced by another materially different apparatus such as without light generating or light detecting means or the apparatus as claimed can be used to practice another and materially different process such as monitoring particles in a fluid flow.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, have acquired a separate status in the art because of their recognized divergent subject matter, the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. James Bradley on October 28, 2005 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-8. Affirmation of this election must be made by applicant in responding to this Office action.

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Claims 9-10 are withdrawn from further consideration by the Examiner, 37 C.F.R. § 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

Claims 1-8 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase “and/or” in claims 1 and 9 render the claims indefinite because the resulting claim does not clearly set forth the mates and bounds of the patent protection desired.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made

The factual inquiries set forth in *Graham v. John Deere Co.*, 148 USPQ 459, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or unobviousness.

Claims 1 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Eriksson in view of JP-2001096241.

Eriksson (6,888,631) disclose a method for cleaning and monitoring window (i.e. a light-transmissive and light reflective surface of oil production system) by flushing away deposits from the window surface by intermittently flushing methanol through a nozzle 10. The nozzle 10 is mounted downstream of the window 5 and direct high pressure spray. In the case where there is a multiplicity of cameras each with its own window, then each such window would be

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provided with its respective such nozzle (see col. 4, lines 26-36). The reference fails to use ozone for flushing.

JP-2001096241 disclose a method for removing organic material from a glass substrate such as quartz glass, liquid-crystal glass by washing with ozone water solution. The concentration of ozonic water is made to be 5 ppm or higher. (see abstract).

It would have been obvious at the time applicant invented the claimed process to utilize ozone water solution as disclosed by Jp-2001096241 into the process of Eriksson for the purpose of removing organic material such as oil contamination from the surface of the light-transmissive window. Further, one of ordinary skill in the art expect that ozone water solution remove organic material such as photo-mask would remove other organic material such as oil contaminants.

Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eriksson in view of JP-2001096241 as applied to claim 1 above, and further in view of Langford or Rosenauer.

Eriksson and JP-2001096241 were discussed supra. However, the references fail to disclose a source of flushing fluid comprising a reservoir of flushing fluid and means for generating ozone and mixing the ozone and flushing fluid.

Langford (5,207,237) and Rosenauer (5,641,456) disclose ozone generator and mixer for the ozone and water (see claims, and abstract).

It is well known in the art to generate ozone and mix with water to form a ozone solution for cleaning as disclosed by Langford and Rosenauer. Therefore it would have been obvious at the time applicant invented the claimed process for flushing reflective surface with ozone water solution to include ozone generator and mixer as disclosed by Langford and Rosenauer in the

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process of Eriksson for generating ozone solution near the point of use because ozone is known to deplete in short time efficient cleaning because ozone is known to deplete in short time.

Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weaver et al in view of JP-2001096241.

Weaver et al (4,896,047) disclose a method for cleaning windows of light-transmissive and light reflective surface in contact with a oil-fire plant by spraying a volatile nonflammable cleaning solvent onto each of the windows. A cleaning substance that may be used is water (see col. 3, lines 21-30).

JP-2001096241 disclose a method for removing organic material from a glass substrate such as quartz glass, liquid-crystal glass by washing with ozone water solution. The concentration of ozonic water is made to be 5 ppm or higher. (see abstract).

It would have been obvious at the time applicant invented the claimed process to utilize ozone water solution as disclosed by JP-2001096241 into the process of Weaver et al for the purpose of removing organic material such as oil contamination from the surface of the light-transmissive window. Further, one of ordinary skill in the art expect that ozone water solution remove organic material such as photo-mask as disclosed by JP-2001096241 would remove other organic material such as oil contaminants.

Claims 2-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weaver in view of JP-2001096241 as applied to claim 1 above, and further in view of Langford or Rosenauer.

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All the reference were discussed supra. However, Weaver et al and JP-2001096241 references fail to disclose a source of flushing fluid comprising a reservoir of flushing fluid and means for generating ozone and mixing the ozone and flushing fluid.

Langford (5,207,237) and Rosenauer (5,641,456) disclose ozone generator and mixer for the ozone and water (see claims, and abstract).

It is well known in the art to generate ozone and mix with water to form a ozone solution for cleaning as disclosed by Langford and Rosenauer. Therefore it would have been obvious at the time applicant invented the claimed process for flushing reflective surface with ozone water solution to include ozone generator and mixer as disclosed by Langford and Rosenauer in the process of Weaver et al for generating ozone solution near the point of use because ozone is known to deplete in short time.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saeed T. Chaudhry whose telephone number is (571) 272-1298. The examiner can normally be reached on Monday-Friday from 9:30 A.M. to 4:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Barr, can be reached on (571)-272-1414. The fax phone number for non-final is (703)-872-9306.

When filing a FAX in Gp 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Saeed T. Chaudhry
Patent Examiner

MICHAEL BARR
SUPERVISORY PATENT EXAMINER

